DZHAGATSPANYAN, R.V.; ZETKIN, V.I.; POSPELOV, V.Ye.; FEDCHENKO, V.S.

Radiation-induced chemical sulfochlorination of polydimethylsiloxane. Plast.massy no.2:16-18 '63. (MIRA 16:2)
(Siloxanes) (Chlorosulfonylation) (Radiation)

L 12964-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Ps-4/Pc-4/Pr-4 RM/WW
ACCESSION NR: AP3000393 S/0191/63/000/005/0004/0007

AUTHOR: Dzhagatspanyan, R. V.; Zetkin, V. I.; Pospelov, V. Ye.; Fedchenko, V. S.

TITLE: Radiochemical sulfochlorination of polystyrene

SOURCE: Plasticheskiye massy*, no. 5, 1963, 4-7

TOPIC TAGS: sulfochlorination, polystyrene, chlorine, sulfur dioxide, cobalt sup 60, sulfuryl chloride

ABSTRACT: Improved properties were anticipated from the sulfochlorination of polystyrene, achieved by reacting 1% polystyrene emulsion with chlorine and sulfur dioxide (in molar ratios of 0.22:1 - 4.05:1) dissolved in carbon tetrachloride and subjected to Gamma-radiation from a Co sup 60 source. Over a range of 0 - 55C, the reaction rate increased with increasing temperature to a maximum at 40C. Increasing the total dose of radiation had little effect on the process, which was all but complete within 15-20 minutes. No clear relationship was found between the rate and outcome of the reaction and the molar ratio of the two gases: although the final sulfur content was more dependent than was the chlorine content on the initial ratio, in no case did the final product contain much more than 3% sulfur. Unlike the other polymers, polystyrene could not be sulfochlorinated with sulfuryl chloride. Sulfochlorinated polystyrene had better adhesive qualities (with glass and

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metals) than polystyrene, a hardness of approximately 0.9 (pendulum apparatus), an impact strength of approximately 50 kg/sec x cm/cm sup 2, and an elasticity in bend of 1 on the NIIK scale. Applied without admixture to iron plates, it withstood 6 hours' exposure to 150C. It was, however, less resistant than polystyrene to the action of acids, alkalis, and water. Orig. art. has: 1 figure, 1 formula, 3 tables.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 10Jun63 ENCL: 00

SUB CODE: MA NO REF SOV: 003 OTHER: 000

Card 2/2

L 6376-66 EWT(m)/EWP(j) RM

ACC NR: AP5026767 SOURCE CODE: UR/0286/65/000/017/0048/0049

AUTHOR: Fedchenko, V. S.; Kutsenko, A. I.

ORG: none

TITLE: A method of producing dyes for plastics. Class 22, No. 174300

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 48-49

TOPIC TAGS: dye chemical, primary aromatic amine, organic azo compound, plastic industry

ABSTRACT: This Author's Certificate introduces a method of producing dyes for plastics by combining diazotized aromatic amines with an azo component. Di- and trialkylaryl phosphates are used as azo components to produce dyes with plasticizing properties, simplify the process of adding the dye and improve the dye quality.

UDC: 668.811.1 : 667.621.72

SUB CODE: GC,OC,MT/ SUBM DATE: 02Apr62/ ORIG REF: 000/ OTH REF: 000

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SOKOLOVA, Z.I.; FEDCHENKO, V.S.

Conference on the problems involved in the coloring of plastics.
Plast.massy no.4:1-2 '61. (MIRA 14:4)
(Dyes and dyeing—Plastics)

FEDCHENKO, V.S.; MARTYNOVA, R.G.

Preparation of structurally colored resins. Plast.massy no.7:41-42 '61. (MIRA 14:7)
(Dyes and dyeing--Plastics)

FEDCHENKO, V.S.

All-Union industry-wide conference on plastics. Plast.massy no.12: 68-69 '63. (MIRA 17:2)

END REEL 125

FROM:

FASTOVA, K.N.

TO:

FEDCHENKO, V.S.